

## Inside




# FOKE 

The neus todey was unexperteg TIMEX DUITS the computer market． ก०：ENOUGH Proit．You can also radd thereiore，hat there must be plenty of propit in the watch market！Texas Instruments got out las fatintari is on the ropes．commojore is a question， cobeco inas an armiul of problems añ on and on．The home computer market is brand new and noone is 7uite sure how to selb big，sell low anj maxe enough profit．As I EEE the market to date，abl the biggies adyertised like crazy to zet people in to the market and then porgot about them after the sate you bannot solve hundreds of Jrobiems a dey about comput－ ers on an BQu number with a per－ son on the other end who doesn t know wint the uni t looks like． much less hou to plug it in．The Eucgessful oferztions IEM，Apples引ng Radi Shagk have a network of stores，trained staif and backup，Even if the home comput－ er is tess tnat＊100 it is stitl complex ang confusing to most． peoole and some handholding is necessary．Dne young lady mrote me asking hou to make the TS1000 unfk the 300 number said they
in：© Explain the basic work－
3s of the computer and gave nep our adyress．There＇s proba－ bit a unole bunch of computers or abi brands sitting on cboset shetves，unuseg！

Helb what happens now？Uncle Cliue is sendins ouer his OL business computer next month maybe then ue ll have an Ameri－ Ean Eonnectionto sinctair Ltd．

He are in touch with other TS user aroups in the us and swap news！etters witr them and wi bi garry articles fom them．The Eincinnati area user group a－ lerts us to a problem that they are having with the 20EB，baj color and sounid．TIMEX was work－ ing on the probtem and now are out of business．Also TS user masazine is supposed to be back in February according to the Cinginnati peopie．

Get a book at the sears 1954 Spring batatog on the ts printer it Ehous it printing in color！ DOEs yours？

Bill Stemples found several
 that 40 ती funtion $100 \%$ If buy ing cherk it out in rett Hawe you ever seen those＂Trac Balls＂ The ones where you roll a dat around with your fingers to con－ trol the mouement of the cursor or pac man？If you flip it ouer it tooks bike à．．．．Uith a tong tail，a rat？No a mouse！thich came first the mouse or the pad－ 4le？

Trip to the Eomputer Show at Madison square Barden is on．got room formore he can go on sat－ UPday，March zi，or sunday，Hp－ ribi．
still hawe an opening for a Recording secretary until May elections．

Fau！Hi！！
President
BINCUE，March 1984

 Home comp ter in normal むj三play mode and printed Gut on the ta e040 therma －rjnter．

The di三p：Et comes from 3 Fragram cabig outaph： that Ear TEPHEOPiEa
from a socx．

## 

Tips from Dawe Schoenwetter

Here are sme tips for mag＝ hine coie programming on the TI－ MEX－Sinclair machines which I have pound to de wery usefules－ pegialty when working with the ek ミqsiem．Aitips will work in はEK systems too．
（1）I haye accidentablu deleted my 1 REM statement when editting the BABIC part of my program on many octasions．To eliminate the possibility of deleting your 1 FEM Etatement which contains your machine code program．EnTER 1 REM followea by enough charac－ ters to hoig your ML program：户口KE 15570，Dunch will change 1 REM TO D REM The program出i i now LIST and RUN but the REM Gannot accidentally be dete－ ted！
（E）Hith barge 1 REM machine Code programs on こK sustems the computer often zets iñ loop山Men attemptins to edit BASIE． This causes a continuous loop LIETING of trying tol the IREM statement To orevent this I I ajded a couf be of Hex $76 \mathrm{~B}^{3}$ near the beginning of 1 REM text This prevents a LIST beyond the ＂Hex 7E＂．One disaduantage is that you mus ENTER LIST E to EEE your BHEIC Frogram．Howeyer it s better thañ losing your pro gram to the＂LIET loop＂．
（B）For anyone interested in EH－ Cóning machine code．I mrote a marhiñ code prgaram that toads itser aboú manTop 2K or 1日K ant uses les bytes of storage． By using poui ines of basic the the program then waits for the UEEr to ENTER a pour digit Hex address：The mo program then PRIMTE to the EGrEen 123 bytes of Hex data．The decimal ad－ dress of the entered HEx address is aiso printeg．The program is then in the INFUT mode for Hex data．Any number of butes may be ENTEDeq on one iine．The charar－ ter＂E Hi f sxip over a byte and moue the bursor by one byte． Hny incomplete oyte or non－balid Hex character（except G）wil！ terming te the program uith an sror：i uil bring a copy of the program to the next meeting． Bowe Schoenue ter


SINCuS members may list up to Ẽ lines free in this space Al！ others may tist for a donation．
Advertising r三tEs for other ads



नus run for at teast 100 copies even if that takes two issues．


SINCUS regeiued the folbowing letter

My name is Ed EOton and I am interested in exchanging TElODD 1EK programs bi present I we over 102 prosfams most of them are lBk requirat They range from uti lies tike vu－chle M－ aduenture prosrams．

If anyone in your 尹roup is in－ teresteg plesse drop me a ine at the autress above（belowi ot ca！ 6 Tre at $35-33 E-373$ ． BDES NOU FLOYD POAD


Hi the 15k RAM and keyboard in a Cるbine？．Bēutiful！

LAMEDA POWER EUEP！H．
RADID AMATEUR SDDE INTERFACE and coue prosram．Dozen other programs pus or 4 bookミ．

PFIEE IS WEEOTIABLE
HLSo has Minguare printer \＄ES
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$3 r a i f i t i ~ w r i t t e n ~ o r ~$
uniwersity computer

Actually，that poem is a bit optimistic．Even when you tell bour computer to do something． it may instead do something else It knows nothing about the deci． ma！numbers ue bse in BRSIC，bu．t insteau uses a cleyer program that giwes us the illusion that it qoes．Uniortunately，this program has certain limitations． and can give the wrong answers to some programs．This is not a bugi it＇s a Froblem that must occur in every gasic in every computer．If the BASIC inter－ preter were well writien，wéd rarely，if ever．run into these limits．ALSo．note that they re tifferent ior different model computers．Whereever they are． they re like a brick wabl that your program absolutely cannot smash through．The only way to get to the other side is to find a cbever way around the obstacte This month，we ll find the wall and do some exercises that will ablow us to think about it． Enter the rollowing program and tr＇y to measure the amount of time it takes to run．（A good measurement yould require a stop山atch but don＇t get all that fanaticai！！

1 FQR 2 NEXT $=1$ TD 10 STEP 1 GA＝Those inj th some knowledge of BABIC 山il reatize that the STEP Fart is unnecessary．but in－ cude it anyway for continuity with uhat wi l come later． When the program is done， tupe PRINT t then E：－＝ヨ．You may be surpriseit at the result， but it 3 iwes some insight as to how a FOR，NEXT LOOP WORKS．

Next，type in the following program．plesse pay carerul at－ tentian to the number of zeroes．

1 FOF $\cup=1030 \mathrm{BW}$ TO 10009010 STE 2 NEXT

ㄹ．the program．Note th making $u$ barger does not make the program run slower．Type PRINT $J$ and ENTER to see a re－ sult that s probablu not too sur prising anymore．

Next，then in：
 10 STEP 1
e NEXT
the program and time it． BRERK and then type PRINT $J$ and ENTER to see hou far jhas gone No matter hou tong you wait be－ fore hitting BREAK，the result will be the same you＇fe just run into the brick wall！！ it＂s not，let＂ ebse first．Tupe in：
1 FOR $J=10000020000$ TO 1000000 亿⿻ 10 STEP 2
E NEXT
This seems to pun pine．perhaps the problem isn t uith J！

Let s try something complete ly tifferent you don＇need a fantastic jackground in mathema－ tics to know that：

The 3 ＇s simply cancel each other out．Let＇s do this in a program：


Halking thrgugh the program山e see that ue ifst set $R=\overline{=}=1$ ． in ines i and e．In ine 3 ，B becomes 1；3．In bine 4 ，b be－ comes 1 again．Therefore，from lines 5 and the result snouid be＂EQuमL＂． Don t make any bets！Try the pro gram out and see for yoursebf！

It shoutan t matter what or－ ter we to the multiply and di－ vide Eo let suap bines 3 and 4 as Follous

3 LET B＝3 $\because$ E
4 LET B＝B／B
First，checx to see that the changed progiram should do the same thing and the RUN it finy does the jnsuer come out dipfer－ ent？we ve just run into a brick wall agaiñ añ though it not obvious．it s the same wabl we hit before！

Hhy toes this happen？If I

Have yod motiena diftinct change in steitutes anout the Zxis? Now, suactenty? from "wow, I cent Pedieve how much we dan to with 30 Little!" it's "Ze1 w/Pmpack. for zeis, cheap: It Eems the time has cone-min litise somputer is, ghudater, gosolete, frot to mink that just a few monthe ago it was state-ot-the-art in "el Chezpy computing. tho things bother me though: I: I bought my $x$ to enjoy it: and I Etil: no Eniou it. E. I bought my $E$ to learm trom it and it Etill has a lot more to tesch me. the of tine things I hatwe enibued leaming is tinat haratware additionz sind modicications are not just for the experts.

## (48 it simple wh ht

The first time sou bote a working. proaram, did you howe any understanding of just what the Eomputer was doing? probably not: wouresills didn't need the sechnical infermetin to make it works. The Somputer was simply at "black box" between the keywoars and the Ty. When you put the might progeam and iata in ore side of the 00\%, out popped the correct ancwers. DK, Eo you biere no whiz-kid at that point, but tou has a funt tione: umterstanding. That Eatue kind of tunctional understancing is a1: you need to we those fancy sound Chips: 10 chips tecoders. statil rams, eti. etc. Unlike the hardwars hackers of fore fyore being angut five years 3.90j, we are Elesea with Eheap. simples bff-the-shelt EDTgle-ihip, "black-boc" solutions try some vern complibated propleme. urigital solutions to these problems wouda require a yery deep understanding of Eiectronics. and lots of Time bind monét but a functional understanding of these "black-boxes" enough to use them. is in rence of the nowice. Large ziade integration makes the jot Eaty.
imeluded an exptanation here, this articte woutd become a bit cumbersome, but I promise to con tinue with it next time. In the meantime, think about the problem. Ehange the programs arount. Note any "sudden" changes when the numbers you use are powers of two. or aimest powers of two: It $s 300 \mathrm{c}$ to try to understand this problem, hecause it can Grop up in man's other inot to obuious ways, and understanding it can saue you many hours of heja scratching when your "perfect"program just won"t Hork.

## an dumpre in tue wals

How to you learo to "proaram" these Lttie blick bger The firet book I recomatha theakes a hut and bolt approach, and is not specificsily aimed at mioromeomputing: but it is useful for learning the Eare ant feeding of TTL Ehips and hou basic logic Eircuits sork.


The fourth book is really meny booke. Nothirry cail sukstitute for the mambacturers zpees to provide bur "biacx-box" dnderstanding. Meny prowide Exmples of workbng Eirvuitz aind all are the last wors on wie to use these Ehipes bet your hanots on some sit these books. Any with the Bedu ebrise of chips are tine: These are easy bo stapt to your EKI jhat most are theap, It you bant a suick look or photerochy it a EREL-Eheet, the undeomm Electrondez store has a wide selection and a sopier.

Finally, as mankers of a computer :lus. We all have one other fine reforence books othe that's herg to beat for zpectic 11fE-saving atuice: the relsphone book. If you hawe en daes or browlein concerning tour computer ance its haridiore. Gell Eoneone. FEllow sha Menters have been pore than hejpful to me. and I would particulariy ldke to fhatik Eridgett kremenec derry kenariod and fies Sroszoudski.

Marjoe, befrore you give jour Tr to hour newheb, or sell ft fromail tollors, you shouls take oft the bate Eower gnt Exeriment a litrie, There's a lot ot fun
 "Obsolete". but hou mans machanes mon't se strear just a Pab yers?


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BRING YQUR DUEETIONS：



## $\frac{\mathrm{TIMEX}}{\mathrm{TiP}}$

TIMEX GOMPUTER GORPORATION पATEREURY，GONNEETICUTT

To Unom It Hz＇Eoncern；

I 山たs astoundeq uhen I read you haj deciued to get out of the home computer market．I am uri－ ting to ask you to reconsider before it is tog late．

I have worn TIMEX watches as long as I san remember．They were purthased por their yalue

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I purGhaseg a TIMEX-Sinc!air
1000 computer tunen they ifis:
rame out por the same reason -
its walue, I manted to find out
if I bikeg computing! I have now
discowered that I love computing
and am luitbing to invest more in
my home computer. I now own the
edEB and the printer, plus seqen
EQSE sortware titles. I took for
warg to buyins a monitor and 30
column ;rinter plus more memor't.
I have shoun the 20Es to many
pegple and the! are rightiully
impresseq, as nawe been the in-
むustry magazines.
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This 3！doesn t make much sense Untess it Ean ee Proiitable for Hou，I xnow that！The problem in thi market i三 for 4250 or less there is not room for a commis sion that ojys someone to hold the users hand．you have the กetwork of ret．コi out lets，now inuest in a netuork of user groups arcoss the country you Houlg be surpriset how much the people in these groups uill set： for tou if tou would but step in引пi give them tour support．

I hope that this may help you to decide to hans in there a bit longer－somedne is going to make money in the low eni home computer market．why not you！

Its bike cancel！ing the Enmy uinting series！
Eincereby

SINELAIF REEEAECH LTD．
－jinclair Piaza
Nashua，Neu Hampshire DS001

To unom It May Eoncern；
I oun a TIHEX－Binclair home Eom－ puter．What support or producta ma＇s I obtain through you．I am particularly interested in the prooucts．for the TS 205B！

I hope tou wi step in and eon－ tinue your suresss story in the home computer market！

Bincerely，
GOUR NAME HERE

A DIFFERENT AFDEDACH：
computer uilit something every 30 man＇t times？If it is doing something evi times but eutrt 40 times．I Hant it to Stop and to someining sise．YOU say just Write IF $k=40$ ，IF $k=80$ ，EtG．Fine but what if k añ mu prequency have no easily defined limits？

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In line isE usenter he fre-
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In line isE usenter he fre-
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quenesbern apo ceredivide the k
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NEH－METE is Moping tha：this is the fre or neu breed of Sincus publications．मз youmust have noticed this is，t mimeograph news letterí It is being done by photocopy ile ye been offer－ ed a chance ：o have the neus te：－ ter produceg pr z siightby nigh Ef cost per copy than we hawe been 戸juing．The benefit of a Dhotocopy product is uie can nou faithruldy orint LISTings！The actuat jrinter ijEting will be HEEG unen He go this，thus you shoub ge jbie to key it in and it llit Run inj thout problem．I मoulu jke to jee some zhort pro马ram bistings Eubmitted for our publication，E4 short，Imean ui ！！the entire listine fit on tuo Bxil Enestiz of paper？That leaues thirjojge por the ex－ planation or the LISTing Bo I am hofing that this new terh－ notogy 山it de y big boostin club morate－He ceitain！y need it，what uith the news of TIMEX tropping 0ut：
PRINT－I hope this paste up sys－ tem deies uork put please giue me bittie time to develop some ミxills at it：I am alread＇g do－ ing some coverup work on pages
for next month to blot out the ＂EうStevp ミhadous＂。 DPम！み－山E sure coubd use some rea： artwork！I am trying to do some 30 jomensionat etters using bu－ me in or thi issue．Anyone out there $\mathrm{g}_{\mathrm{o}}$ any ideas por the artwork．Thanke for the couers 30 es to the pres Paul Hill．Eut We need artuork ior each heading Like TIMEXLt Tizsi USE the ones in this issue zs a ouide．If your produce something reaturneat：I Hi b GE：4OU do ALL of the heag－ ingㄴ․
EDIT－this format makes it much Easier for me to do mu iob．I＇m hoping that these prifiter copies do 6oz！okju，He ye seen．poor GQpiEs gi printer stuli in gther กe山上 Etters，At thi三point I us not sén the result te t！
 Hes on the EB：k Ha b：Those Uith TS 2DEBE EE Prepared for a ififerent result than your 100 O priende get！
LLIET－I am zarticularty proug or the prosram that I 山rote 山ester－ はay in an hour or so．I Hill jeー monstrate itat the next mesting Itprinted at the text in this Пモus ie：ter：I：山as necessaru as my evectic tueuriter turned ue broker uhen tortit gut to tufe the newstettert The great attri bute of the exEE is that it i三 progitmmer amachine！I mon＇t cham these tug programs are the pinal ansuer sut they re okay

Por a couple hours work！First program pallous you to tupe in ee in ines of text．You may then review each line and make any of the shanges that may have become กecessary bu the 32 spots per line format you may alsoprint out a copy oi the 22 bines．The EE ints may then be saued to amsure clumsy by word proces－ sing stendards but this is not a＂uoŕ processor＂n it is a news letter FIGRMTTER！Hell the sec－ oni proaram puts the separate parts together allouing the ej－ itor to teaue a gap in the copy at any pojnt to facilitate cut－ tins and pasting to permit a rit
into the awailable space．An if into the auai gie space．An in－ EEE TIMEXby Tips for the answer． Program 日 abso provides that if the ijrst friniout is not what inj f bork then you may easiby ob tain any number of subsequent printouts，untilyou 子et the ex－ act pit that you need！
BRIEHTーI am not certain or the tebepione exchange and area code bu：Digital Research＇s home num－ berz inot the Boo ones）are BbBu Bos．and Basa！！But where did the sobs come from！These aresor course the numbers of the chips imictoprotessors）most opten asー三ogiated with Di马ita！！
DATA－congratulations，Mr．and Mrs．Wes gragzouski on the arri－ yri ap their neu baby daughter．
 ter market．I nawe a myriad of idezs on the subject，but I wi！！ try to coninnemy thoughts to a feu suctint peports I have reau p！us my persone！experience uith TIMEX．

[^1]catalog people siough tead timp to plan their fall batalogs．He continueg with the statement＂He uill continue to bui do computers until we run out ap parts－some months irom nou！If that is the real answer Hh＇s didn \＆TIHEX say that to start uith！

The TIMEX－3inctair 2063 cand the first mistake－arter not getting it out in March of 1983－以as NDT naming it the＂eDog＂！has got－ ten rave rewieus by every publi－ cation that has reviewea it！The unfortunate problem is the great revieus are coming apter the show is cancelbed！But America is not without precedent in this situation．The consumer has to exprese the demand．He need to Expiuite the dewelopment of the Etronges：network of user groups in the intustry find through the influence of such unity we must iet the manuiacturers know that． there is a demand of substantia proportions out here！

My father used to preach＂Neuer underestimate a man s ability to pay for something that he wants＂ TIMEX seems to keep trying to jo it on price．TE1000 was \＃1 iñ and yIE 20 had color and real keyboards and bells and whistles They did－but they also had a feut drambacks－1ike expensive other stupi－like tape recorders． memory expansion unite，and the stupi called software．The TIMEX might hate been in blackruhite but it heta no hidden extra cost It 山as the best of the 部时iñ फEstments－if tou didn＊know if you liked＂computing＂！If you did bike computing uhy not admit． computing costs more than 180 ！

My unfortunate conclusion keeps coming back to the facts that 1．TIMEX seems to hawe been in a bad financiabposi－ tion REFGDE they took on the computers！They were 60king igr a quick way Out？FEmember TIMEX isn t on the EtGCk exchange it 2．There is a questionable market por a computer that anly costi $\$ 100$ or euen SeSo，The reason for the question is：山hat does i＊ do that I needi I teach a Course in home computers and untess you nest mail－ ing babets por your cards you may be hard putedo use EDUCHE EOMPUter－EXCEFT Ean de a great teacher！


[^0]:    PHUSE IE5
    E＝B＝3 THEN PHUSE 4RO
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[^1]:    FIRET， 3 I I \＆Eted in $2 K$ ExPRESS 3 Goujte of month s ago－there is a second ñme on my computer and that is Bintiair．He are not the THEX uh，ue are the jinclair LSETE EOGiety．He haue to hope that simelair uibl folbow thru here in the cotanies．I would EugGes that everuone who is con GERTE Et this ooint－uRITE A LE autreses are in TIMEXly Tips otus an idea for uhat you might三引y The fart asout being raisea with TIHEX wetEhes is optional！ but if it is true use it！

    The tatest neus release that I pead on the susiect quoted a Ti－ nounceg now so as to give the

